

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001673**Date Inspected:** 06-Mar-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Hu Wei Qing, Huang Wen-Pang			CWI Present:	Yes	No
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No N/A
				Delayed / Cancelled:	Yes	No N/A
Bridge No:	34-0006			Component:	OBG	

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 7 OBG:

The QA Inspector randomly observed ZPMC Welders Hong Yongli ID Number 044801 and Chen Chuan Zong ID Number 044824, utilizing the FCAW Process with ZPMC Weld Procedure Specification (WPS) WPS-B-T-2132-3 in the 2F (Horizontal Fillet) position with Hitronic HIT-18-1D Automatic Welding Carriages, to weld various stiffeners to Floor Beam Sub-Assembly FB025-02. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly observed welding parameters and they are as follows: 295 amps, 30.2 volts with a travel speed of 411 millimeters (mm) per minute for Mr. Hong and 302 amps, 29.2 volts with a travel speed of 418 mm per minute for Mr. Chen. Weld parameters appeared to comply with contract requirements.

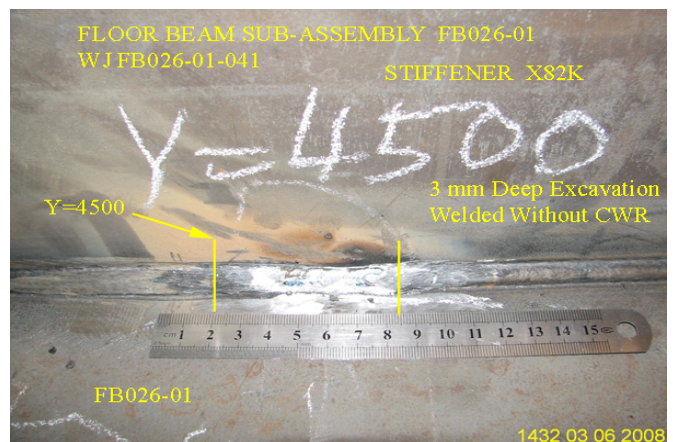
The QA Inspector randomly observed ZPMC Welders Wu Wanyong ID Number 050242 and Li Shenhui ID Number 050914, utilizing the FCAW Process with ZPMC WPS WPS-B-T-2132-3 in the 2F (Horizontal Fillet) position to weld gusset stiffeners to Floor Beam Diaphragm FB003-08. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters. The QA Inspector also randomly observed welding parameters and they are as follows: 300 amps, 30 volts with a travel speed of 435 mm per minute for Mr. Wu and 296 amps, 29.4 volts with a travel speed of 440 mm per minute for Mr. Li. Weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

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The QA Inspector randomly observed ZPMC Welder Wang Changfa ID Number 058102 preparing to make a repair to in WJ FB026-01-041, in an excavation at Y=3670. This excavation was in excess of 3 mm deep and required Engineers approval prior to the repair. There had been another excavation at Y=4500 mm that had been welded up prior to the QA Inspector arriving on FB026-01. The QA Inspector asked ZPMC CWI Hu Wei Qing if the welding had been performed with an approved Critical Weld Repair (CWR). Mr. Hu informed the QA Inspector that he wasn't aware of a CWR and that he also wasn't aware that a CWR was needed for these repairs. American Bridge/Fluor Enterprises Representative Dave LaRue arrived on the scene at this time and informed Mr. Hu that an approved CWR was indeed required to perform these repairs and that the generation of the applicable CWR was in process. Mr. LaRue also informed the QA Inspector and Mr. Hu, that he would be generating a Non-Conformance report for welding without an approved CWR. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC Non-Destructive Technicians Cai Xin Xin and Zhou Dongyun, utilizing the Magnetic Particle Testing (MT) Method, to examine welds on Floor Beam Diaphragms Flanges FB004-001, FB004-003, FB004-004, FB013-02, FB013-003 and FB013-019. There appeared to be no indications and ZPMC QC accepted all welds.



Summary of Conversations:

As noted in the above body of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Hager,Craig

QA Reviewer